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<130> GI-5315

<140> 09/249,011

<141> 1999-02-12

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<170> FastSEQ for Windows Version 3.0
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<210> 1

<211> 405

<212> DNA

<213> Murine anti-B7-2 heavy chain

**<220>**

<221> CDS

$\langle 222 \rangle \quad (1) \dots (405)$

<223>

<400> 1																
atg	ggt	tgg	aac	tgt	atc	atc	ttc	ttt	ctg	ggt	aca	aca	gct	aca	ggt	48
Met	Gly	Trp	Asn	Cys	Ile	Ile	Phe	Phe	Leu	Val	Thr	Thr	Ala	Thr	Gly	
1				5					10					15		
gtg	cac	tcc	cag	gtc	cag	ctg	cag	cag	tct	ggg	cct	gag	ctg	gtg	agg	96
Val	His	Ser	Gln	Val	Gln	Leu	Gln	Gln	Ser	Gly	Pro	Glu	Leu	Val	Arg	
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<220>
<221> CDS
<222> (1) ... (396)
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<210> 4
<211> 132
<212> PRT
<213> Murine anti-B7-2 light chain
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<400> 4  
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 1 5 10 15  
 Gly Thr Cys Gly Asp Ile Val Leu Ser Gln Ser Pro Ser Ser Leu Ala  
 20 25 30  
 Val Ser Ala Gly Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser  
 35 40 45  
 Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu Ala Trp Tyr Gln Gln  
 50 55 60  
 Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg  
 65 70 75 80  
 Glu Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp  
 85 90 95  
 Phe Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr  
 100 105 110  
 Tyr Cys Thr Gln Ser Tyr Asn Leu Tyr Thr Phe Gly Gly Gly Thr Lys  
 115 120 125  
 Leu Glu Ile Lys  
 130

<210> 5  
 <211> 405  
 <212> DNA  
 <213> Humanized murine anti-human B7-2 heavy chain  
 <220>  
 <221> CDS  
 <222> (1)...(405)

<400> 5  
 atg ggt tgg aac tgt atc atc ttc ttt ctg gtt acc aca gct aca ggt 48  
 Met Gly Trp Asn Cys Ile Ile Phe Phe Leu Val Thr Thr Ala Thr Gly  
 1 5 10 15  
 gtg cac tcc cag gtc cag ctg gtg cag tct ggg gct gag gtg aag aag 96  
 Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys  
 20 25 30  
 cct ggg agc tca gtg aag gtg tcc tgc aaa gct tcc ggc tac aca ttc 144  
 Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe  
 35 40 45  
 act gat tat gct ata cag tgg gtg aga cag gct cct gga cag ggc ctc 192  
 Thr Asp Tyr Ala Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu  
 50 55 60  
 gag tgg att gga gtt att aat att tac tat gat aat aca aac tac aac 240  
 Glu Trp Ile Gly Val Ile Asn Ile Tyr Tyr Asp Asn Thr Asn Tyr Asn  
 65 70 75 80  
 cag aag ttt aag ggc aag gcc aca atg act gta gac aag tcg acg agc 288  
 Gln Lys Phe Lys Gly Lys Ala Thr Met Thr Val Asp Lys Ser Thr Ser  
 85 90 95

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tat	tac	tgt	gca	aga	gcg	gcc	tgg	tat	atg	gac	tac	tgg	ggt	caa	ggt	384
Tyr	Tyr	Cys	Ala	Arg	Ala	Ala	Trp	Tyr	Met	Asp	Tyr	Trp	Gly	Gln	Gly	
		115					120					125				

acc ctt gtc acc gtc tcc tca 405  
Thr Leu Val Thr Val Ser Ser  
130 135

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.<210> 6
<211> 135
<212> PRT
<213> Humanized murine anti-human B7-2 heavy chain
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	<400>						6									
Met	Gly	Trp	Asn	Cys	Ile	Ile	Phe	Phe	Leu	Val	Thr	Thr	Ala	Thr	Gly	
1				5					10					15		
Val	His	Ser	Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	
			20					25					30			
Pro	Gly	Ser	Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	
			35				40					45				
Thr	Asp	Tyr	Ala	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	
	50					55				60						
Glu	Trp	Ile	Gly	Val	Ile	Asn	Ile	Tyr	Tyr	Asp	Asn	Thr	Asn	Tyr	Asn	
65					70					75					80	
Gln	Lys	Phe	Lys	Gly	Lys	Ala	Thr	Met	Thr	Val	Asp	Lys	Ser	Thr	Ser	
				85					90					95		
Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	
			100					105					110			
Tyr	Tyr	Cys	Ala	Arg	Ala	Ala	Trp	Tyr	Met	Asp	Tyr	Trp	Gly	Gln	Gly	
		115					120					125				
Thr	Leu	Val	Thr	Val	Ser	Ser										
	130					135										

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<210> 7
<211> 396
<212> DNA
<213> Humanized murine anti-human B7-2 light chain
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<220>
<221> CDS
<222> (1) ... (396)
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Met Asp Ser Gln Ala Gln Val Leu Ile Leu Leu Leu Leu Trp Val Ser  
1 5 10 15

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ggc acc tgt ggg gac att gtg ctg aca cag tct cca gat tcc ctg gct 96  
Gly Thr Cys Gly Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala  
20 25 30

gta agc tta gga gag agg gcc act att agc tgc aaa tcc agt cag agt 144  
Val Ser Leu Gly Glu Arg Ala Thr Ile Ser Cys Lys Ser Ser Gln Ser  
35 40 45

ctg ctc aac agt aga acc cga gag aac tac ttg gct tgg tac cag cag 192  
Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu Ala Trp Tyr Gln Gln  
50 55 60

aaa cca ggg cag cct cct aaa ctg ctg atc tac tgg gca tcc act agg 240  
Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg  
65 70 75 80

gaa tct ggg gtc cct gat cgc ttc agt ggc agt gga tct ggg aca gat 288  
Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp  
85 90 95

ttc act ctc acc atc agc agt ctg cag gct gaa gac gtg gca gtt tat 336  
Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr  
100 105 110

tac tgc acg caa tct tat aat ctt tac acg ttc gga cag ggg acc aag 384  
Tyr Cys Thr Gln Ser Tyr Asn Leu Tyr Thr Phe Gly Gln Gly Thr Lys  
115 120 125

gtg gaa ata aaa 396  
Val Glu Ile Lys  
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<210> 8

<211> 132

<212> PRT

<213> Humanized murine anti-human B7-2 light chain

<400> 8

Met Asp Ser Gln Ala Gln Val Leu Ile Leu Leu Leu Leu Trp Val Ser  
1 5 10 15  
Gly Thr Cys Gly Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala  
20 25 30  
Val Ser Leu Gly Glu Arg Ala Thr Ile Ser Cys Lys Ser Ser Gln Ser  
35 40 45  
Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu Ala Trp Tyr Gln Gln  
50 55 60  
Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg  
65 70 75 80  
Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp  
85 90 95  
Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr  
100 105 110

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Tyr Cys Thr Gln Ser Tyr Asn Leu Tyr Thr Phe Gly Gln Gly Thr Lys  
115 120 125  
Val Glu Ile Lys  
130

<210> 9  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> CDR1 of humanized murine anti-human B7-2 heavy  
chain  
  
<221> CDS  
<222> (1)...(15)

<400> 9  
gat tat gct ata cag 15  
Asp Tyr Ala Ile Gln  
1 5

<210> 10  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> CDR1 of humanized murine anti-human B7-2 heavy  
chain

<400> 10  
Asp Tyr Ala Ile Gln  
1 5

<210> 11  
<211> 51  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> CDR2 of humanized murine anti-human B7-2 heavy  
chain

<221> CDS  
<222> (1)...(51)

<400> 11  
gtt att aat att tac tat gat aat aca aac tac aac cag aag ttt aag 48  
Val Ile Asn Ile Tyr Tyr Asp Asn Thr Asn Tyr Asn Gln Lys Phe Lys  
1 5 10 15

ggc 51  
Gly

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<210> 12  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> CDR2 of humanized murine anti-human B7-2 heavy chain

<400> 12

Val	Ile	Asn	Ile	Tyr	Tyr	Asp	Asn	Thr	Asn	Tyr	Asn	Gln	Lys	Phe	Lys
1				5					10					15	
Gly															

<210> 13  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> CDR3 of humanized murine anti-human B7-2 heavy chain

<221> CDS

<222> (1)...(21)

<400> 13

gcg	gcc	tgg	tat	atg	gac	tac
Ala	Ala	Trp	Tyr	Met	Asp	Tyr
1				5		

21

<210> 14  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> CDR3 of humanized murine anti-human B7-2 heavy chain

<400> 14

Ala	Ala	Trp	Tyr	Met	Asp	Tyr
1				5		

<210> 15  
 <211> 51  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> CDR1 of humanized murine anti-human B7-2 light chain

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<221> CDS

<222> (1)...(51)

<400> 15

aaa tcc agt cag agt ctg ctc aac agt aga acc cga gag aac tac ttg 48  
Lys Ser Ser Gln Ser Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu  
1 5 10 15

gct 51  
Ala

<210> 16

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR1 of humanized murine anti-human B7-2 light  
chain

<400> 16

Lys Ser Ser Gln Ser Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu  
1 5 10 15  
Ala

<210> 17

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> CDR2 of humanized murine anti-human B7-2 light  
chain

<221> CDS

<222> (1)...(21)

<400> 17

tgg gca tcc act agg gaa tct 21  
Trp Ala Ser Thr Arg Glu Ser  
1 5

<210> 18

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR2 of humanized murine anti-human B7-2 light  
chain

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<400> 18

<211> 24

<213> Artificial Sequence

<223> CDR3 of humanized murine anti-human B7-2 light chain

<222> (1) . . . (24)

24

<211> 8

<213> Artificial Sequence

<223> CDR3 of humanized murine anti-human B7-2 light chain

<400> 20